Background

- Under-resourced urban communities in the US commonly lack access to healthy foods largely due to a food system that favors the provision of calorie-dense processed foods to main food sources. These communities experience disproportionate rates of obesity and diet-related chronic disease, making the need for a feasible, culturally-appropriate, and sustainable solution urgent.
- BUD is a multi-level multi-component systems intervention leveraging technology to affordably move fresh foods from local suppliers to corner stores (Figure 1) in food-scarce neighborhoods of Baltimore, MD.

Figure 1. Corner Store in Baltimore, MD

Objectives

1. To develop a basic working version of the BUD mobile application
2. To design point-of-purchase marketing materials aimed at targeting consumers
3. To enroll one local supplier to grow, sell, and deliver fresh produce to corner stores (n=2) over a two-month period

Methods

- Iterative formative research to inform the front-end design of the BUD app began in 2016 and is ongoing.
- A basic prototype of the BUD app derived from wireframe mockup images (Figure 2) was designed via Adobe Photoshop, Illustrator, XD.
- One supplier (a local 400 sq. ft. hydroponic farm) was recruited and interviewed prior to participating in a two-month pilot test of the BUD app.

Figure 2. Sample Wireframe Mockups of the BUD app

Figure 3. Greens Produced by Hydroponic Farm Supplier

Figure 4. Point-of-Purchase Marketing Materials and Packaging

Results

- A basic working version of the BUD app with desired features for use by suppliers and corner store owners was developed.
- Point-of-purchase marketing materials were designed and refined, and a website created for consumers to post and share recipes using the promoted healthy items available in stores.
- One supplier and two corner store owners were recruited, enrolled, and interviewed prior to participating in a two-month pilot test of the BUD app.

Conclusion

- BUD uniquely intervenes at multiple levels of the local food system, with strong stakeholder buy-in at the supplier and retailer levels.
- Increasing consumer awareness through point-of-purchase marketing strategies may improve healthy food purchasing and consumption, and subsequently, diet and diet-related health outcomes.
- The findings from the planned pilot test will inform a randomized controlled trial set to begin in Fall 2021, with eventual scale-up to other cities nationwide.

References


Acknowledgements & Funding

A special thanks to our collaborators at SpringForward as well as our graduate research assistants at the Maryland Institute College of Art and the Johns Hopkins Bloomberg School of Public Health.

Funding provided by the NHLBI, NIH, award number R34HL145368.

For more information, please contact Emma C. Lewis at elewis40@jhu.edu.